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# **The Economics of NFL Team Ownership**

**Professor Kevin M. Murphy**

**Professor Robert H. Topel**

**CHICAGO PARTNERS**

A SUBSIDIARY OF NAVIGANT CONSULTING, INC.

140 South Dearborn Street  
Chicago, Illinois 60603

This report was prepared at the request of the National Football League Players' Association. The views expressed herein are the views of the authors.



## THE ECONOMICS OF NFL TEAM OWNERSHIP

**Profs. Kevin M. Murphy & Robert H. Topel<sup>1</sup>**

Our firm has been asked by the NFL Players Association (NFLPA) to examine the NFL owners' claim that they cannot continue to operate economically under the current salary cap/free agency system. The best source of information for this analysis would have been the audited financial statements of the NFL and each of its 32 teams and affiliated enterprises. However, we understand that the NFL owners are unwilling to provide that information to either the NFLPA or the public. The best available alternative information is contained in the financial statements of the Green Bay Packers (the one publicly owned franchise in the NFL) and in data collected by reputable third parties and by the NFLPA. The data from these various sources are broadly consistent with one another. Thus we conclude that together they paint a reliable picture of the financial performance of NFL teams.

Based on our analysis of the economic and financial data, we have reached the following conclusions:

- Over the past decade, NFL owners have, on average, done very well financially, and they have continued to do well since the 2006 extension of the current Collective Bargaining Agreement (CBA).<sup>2</sup>
- Team values have nearly quadrupled since 1998: the average NFL team is now worth more than \$1 billion.

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<sup>1</sup> Dr. Murphy is the George J. Stigler Distinguished Service Professor of Economics at the Booth School of Business and the Department of Economics at The University of Chicago. Dr. Topel is the Isidore Brown and Gladys J. Brown Professor of Economics at The University of Chicago Booth School of Business, Director of the University's George J. Stigler Center for the Study of the Economy and the State, and Director of the University of Chicago Energy Initiative. Both Dr. Murphy and Dr. Topel are also Principals at Chicago Partners, an economics consulting firm that specializes in the application of economic theory and statistics to a variety of legal and regulatory issues. Chicago Partners is a wholly owned subsidiary of Navigant Consulting, Inc.

<sup>2</sup> As is the case with any average, some teams are doing better than the average, and some are doing worse. However, we note that the NFL has existing mechanisms for revenue-sharing and thus is presumably in a position to assist weaker teams if it so desires.

- Over the past five years, average operating income per team has been \$26.4 million. Last year, the average team earned approximately \$25 million.
- When one takes into account both capital appreciation and operating income, NFL owners have realized average total returns of nearly \$100 million per year per team, or an average annual return of 17.6 percent over the past decade.
- The financial returns to NFL owners have been substantially greater than the returns to investments in the overall U.S. economy as reflected in broad-based stock market indices.
- The percentage of total revenues paid to players in the years following the 2006 CBA extension is lower than the average percentage paid to players since the NFL and the players entered into the current salary cap/free agency system in 1993. Recent increases merely reverse a downward trend that began in 1999.
- The proportion of rookie player salaries in the NFL has declined over the past decade.
- NFL owners have enjoyed substantial increases in their wealth under the salary cap/free agency system. To the extent that the recent turmoil in the financial markets may have an impact on future economic performance, the current system contains an adjustment mechanism that will restrain the salary cap and put a ceiling on the player compensation as a percentage of overall revenues.

## **I. ECONOMIC FRAMEWORK**

In press reports we have seen, NFL owners appear to be claiming that they are not earning enough to be able to afford their labor costs. It appears they are focused on net operating income, i.e., they are claiming that they are not making enough money because net operating income is “too low.” However, net operating income fails to take into account the increase in the value of NFL teams and thus is not a reasonable economic measure of return. The true economic return to team ownership includes both net operating



income and the increase in team value. If a person buys a stock for \$1, and then sells it a year later for \$101, he or she will have made \$100, regardless of whether the company paid a dividend that year. When one considers both operating income and capital appreciation, as one should, the NFL owners have enjoyed great economic success, particularly over the last decade.

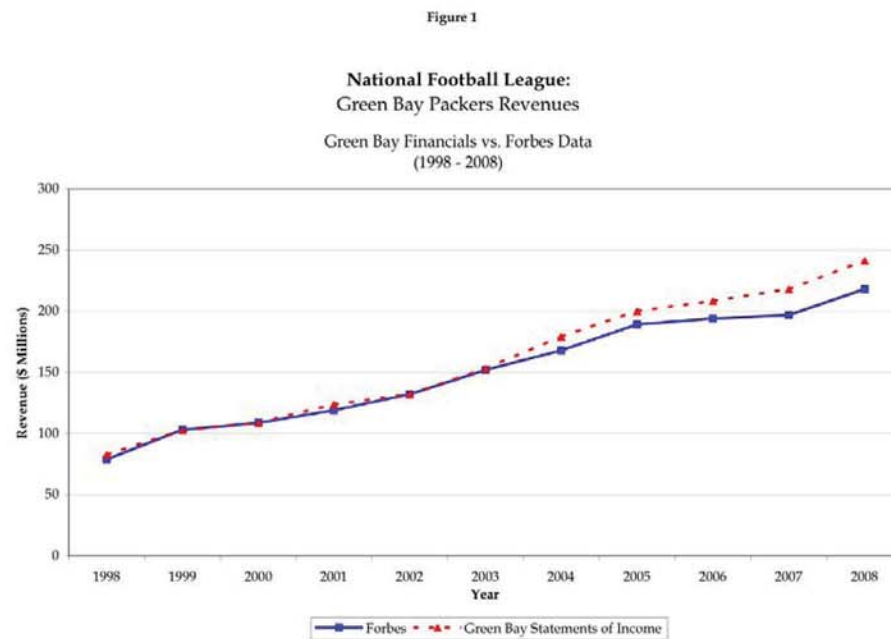
## II. THE ECONOMIC DATA

With the notable exception of the Green Bay Packers, all of the NFL teams are privately held. They do not release their financial information to the public, and the NFL itself releases very little financial information. We understand that in response to claims by the NFL owners about their recent financial difficulties, the NFLPA asked the owners to provide financial data to support their claims, but the owners refused. Thus, we do not have access to the direct data that an economist would normally use to analyze the economics of team ownership. However, there are other data upon which we can rely, including the following:

- Financial information for the Green Bay Packers as publicly reported to their shareholders (1997-2008);
- Estimates of team values and other financial information reported by *Forbes* (1998-2008);
- Transactions data for expansions and full or partial sales for all teams, compiled by Professor Gerald W. Scully (1922-2008); and
- Information on aggregate NFL revenues and player costs disclosed by the NFL and the NFLPA (1994-2007).

The *Forbes* data contain information on individual franchise value, revenue, operating income, debt, player expenses, and (for the last six years) gate receipts. NFL owners have criticized the *Forbes* data, particularly the estimates of team value, but they have not provided any contrary financial information. Moreover, comparisons of the *Forbes* data with the financial information from the Green Bay Packers and other aggregate information produced as part of the salary cap calculations indicate that the *Forbes* data are reasonably accurate.

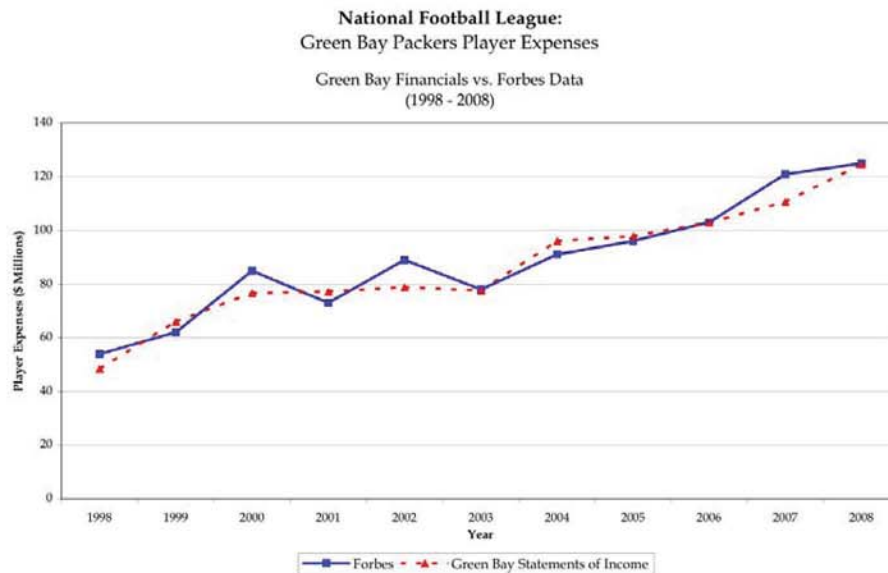
The reasonableness of these data is shown by Figures 1 through 3, which compares various financial results for the Packers with the equivalent results as presented in the Forbes data.<sup>3</sup> Figure 1 compares revenues for the Packers as disclosed in their financial statements with revenues as presented in the Forbes data. As the figure shows, the Packers' revenues as reported in their financial statements were slightly higher and grew more rapidly than the revenues presented in the Forbes data. These facts indicate that the Forbes data are conservative in this regard.



The similarity of the two data sources is also apparent in a comparison of reported player costs (see Figure 2).

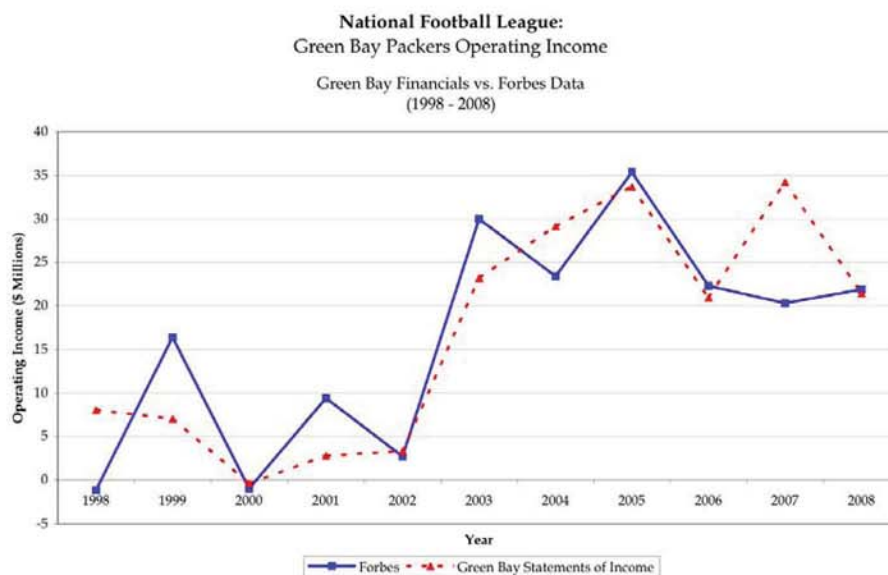
<sup>3</sup> Over the past five years, the Green Bay Packers have been approximately in the middle of all NFL teams in financial performance as reported by Forbes. They were 19, 15, 22, 15, and 19 from the top in operating income in the years from 2004 through 2008, respectively, and tied for 13 (with the Detroit Lions), 13, 12, 14, and 13 from the top in team revenue over the years from 2004 through 2008, respectively. This indicates the financial performance of the Packers has been roughly average, i.e., the team is not an outlier.

Figure 2



As to operating income, the Forbes data and the Packers financial information are also reasonably close, as shown in Figure 3.

Figure 3





The utility of the Forbes data for assessing the economics of NFL ownership is also confirmed by comparing the total revenue and total player cost data contained in the Forbes data versus the same data as disclosed (in aggregate terms) by the NFL and the NFLPA:

Figure 4

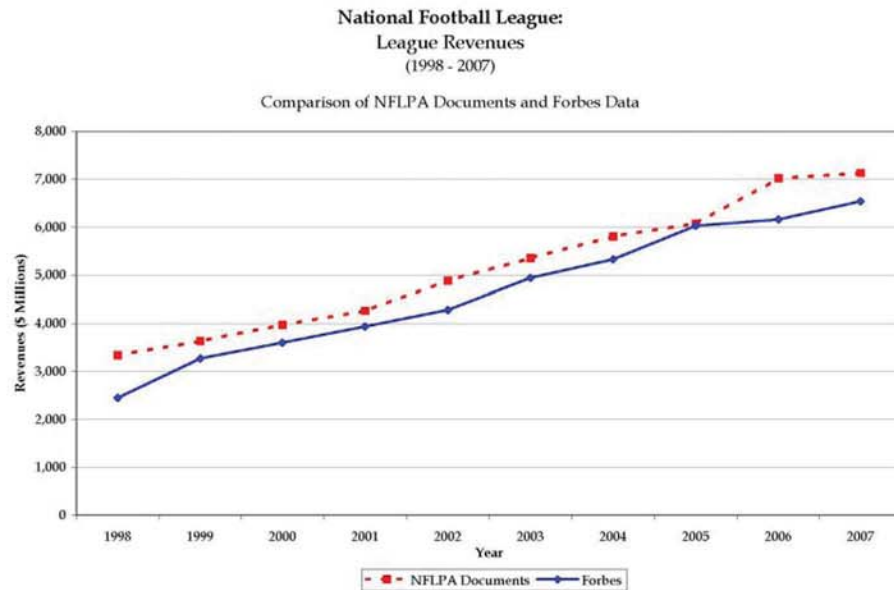
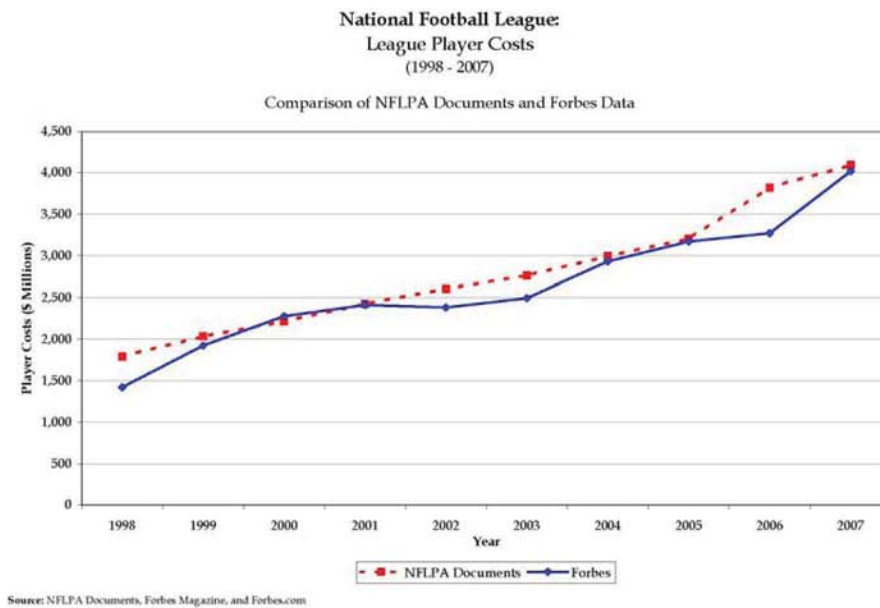


Figure 5



These figures show that, although the Forbes data do not match the NFL data exactly, they are a reasonable approximation and, in any event, they are not systematically biased, i.e., they are not generally too high or too low relative to market transactions. If anything, the Forbes aggregate revenue data are somewhat conservative.

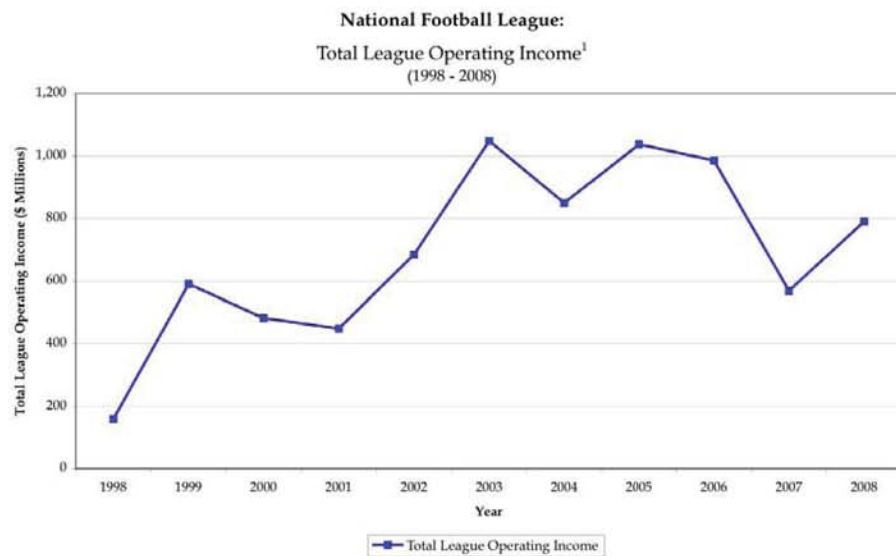
### III. NFL OWNER FINANCES

#### A. The Return to Owning an NFL Team

##### 1. Operating Income

The NFL has done very well financially over the past decade. League revenues have more than doubled (see Figure 4 above). In addition, the NFL has developed new sources of income, including the internet and new media, and many teams now enjoy new stadiums. Net operating income has also risen substantially over the past decade. Although net operating income was \$790 million this past year, it has been over \$1 billion in two of the last six years and just under \$1 billion in another, separate and apart from any capital gains.

Figure 6

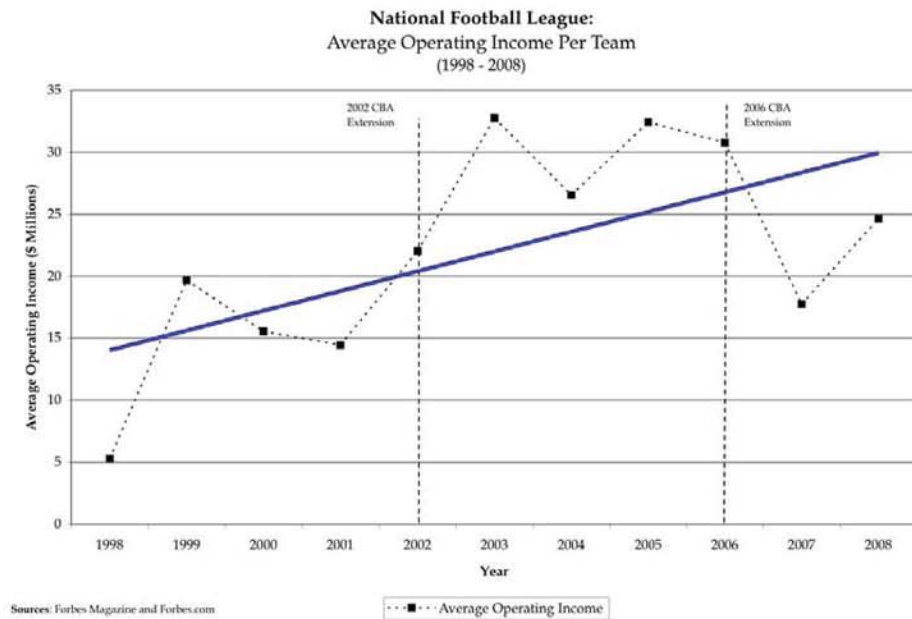


Sources: Forbes Magazine and Forbes.com

Note: (1) Total League Operating Income is computed as the sum of operating incomes of all teams, as reported by Forbes

On average, operating income per team has ranged from just under \$20 million to more than \$30 million each year since 2002:

Figure 7



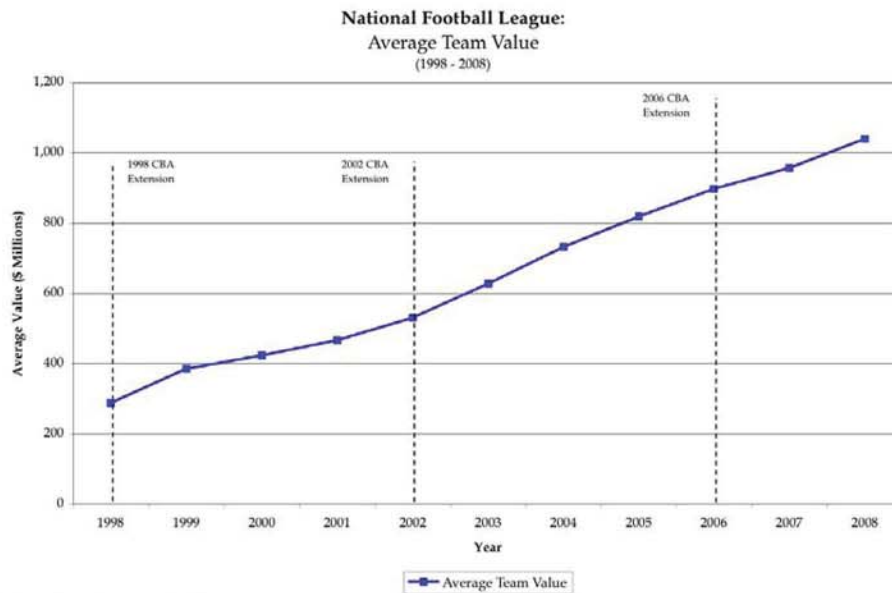
Notably, average operating income over this period has generally been above average operating income in the years prior to the two extensions of the CBA with the NFLPA. (The Green Bay Packers have reported annual operating income of between \$20 million and \$35 million since the 2006 CBA extension (see Figure 3 above)).<sup>4</sup>

## 2. *Franchise Values*

A large portion of the return to NFL team ownership has come in the form of capital appreciation. Between 1998 (when Forbes began reporting team values) and 2008, the average NFL team increased in value from \$288.1 million to \$1.04 billion, or 360 percent:

<sup>4</sup> While net operating income as reported is not precisely equal to cash flow, our analysis of the Green Bay financial statements suggests that operating income in this industry is a relatively good measure of cash flow, and therefore, it is a reasonable approximation for purposes of determining the overall return to NFL team ownership. Green Bay's income statements are almost certainly based on accrual based accounting, which can lead to some differences between operating income and cash flow.

Figure 8



In other words, the value of the average NFL team has risen at a compound annual rate of 13.7 percent over this period. While NFL owners have criticized the Forbes franchise value estimates as too high, a review of the published data on actual transactions suggests that while the Forbes data overstated transactions' values in some cases, they understated those values in others, and overall, there does not appear to be a systematic bias one way or the other.

Table 1

**National Football League:  
Teams with Transactions and Forbes Valuations Since 1998**

Team	Year	Forbes Team Value (\$ Millions)	Franchise Sale Price (\$ Millions)
Minnesota Vikings	1998	233	246
St. Louis Rams	1998	322	200
Atlanta Falcons	2002	407	545
Baltimore Ravens	2004	776	600
Minnesota Vikings	2005	658	600
Oakland Raiders	2007	812	750
Miami Dolphins	2008	1,044	1,100

Sources: Forbes Magazine, Forbes.com, and data collected by Professor Gerald W. Skully



In addition, the values reported by Forbes are confirmed by an analysis of the data on actual sales. We have used regression analysis to examine the transactions that have involved a total or partial sale or an expansion of the league since 1970 (the year in which the then-existing National and American Football Leagues merged to form the NFL as we now know it). This analysis suggests that the average team value has increased at a compound annual rate of approximately 12.4 percent per year over the period, or 325 percent between 1998 and 2008.<sup>5</sup> This result is based on both actual transactions and information from the Forbes estimates. If we use information on transactions only, we estimate that average team value has increased at a compound annual rate of 12 percent. Thus, an econometric analysis of the data on actual sales and other transactions confirms that the Forbes estimates of increases in team value are consistent with what has happened in the marketplace.

This past December, Stephen Ross exercised an option to complete the purchase of a 95 percent interest in the Miami Dolphins at a price that puts the value of the team at more than \$1 billion.<sup>6</sup> This transaction suggests that NFL franchise values have not suffered the same way that other investments have in the wake of the recent financial turmoil in the U.S. and elsewhere.<sup>7</sup> This is not altogether surprising, since a large fraction of NFL revenues come from multi-year arrangements that are not subject to wide short-term variability. For example, national television contracts – which contribute about \$3 billion in revenues to the NFL each year – are long-term contracts, some of which are not

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<sup>5</sup> This growth rate is a bit lower than the growth rate from the Forbes data, but it is driven in part by the fact that this is an average, and growth in team value during the early part of the period was lower than in the latter part.

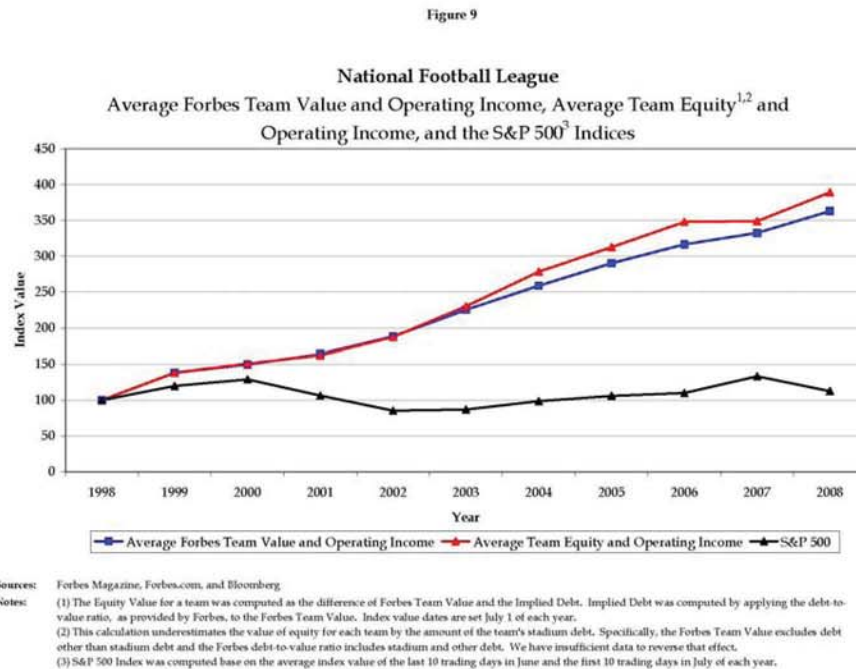
<sup>6</sup> See, e.g., ESPN.com. 2008. “Owners unanimously approve 50 percent sale to real estate mogul.” <http://sports.espn.go.com/nfl/news/story?id=3322338>. (Accessed January 27, 2009); Jackson, Barry. 2009. “Miami Dolphins sale complete as Stephen Ross becomes majority owner.” *The Miami Herald*, <http://www.miamiherald.com/sports/story/864120.html> (Accessed January 27, 2009); ESPN.com. 2009. “Ross, Huizenga complete Fins sale,” <http://sports.espn.go.com/nfl/news/story?id=3847012> (Accessed January 27, 2009).

<sup>7</sup> The recent sale of partial ownership interests in the Pittsburgh Steelers also supports the continued strength of NFL team values, with reports indicating the sale of this franchise (in a relatively small market) occurred with the team valued at between \$800 million and more than \$1 billion. The fact that the transaction occurred between family members suggests that the value of the transaction may, if anything, be understated.



scheduled to expire until 2011. Steady revenue streams like this contribute to the financial stability of NFL teams.<sup>8</sup>

The rate of return for an NFL owner has proven to be substantially better than the performance of other investments in the U.S. economy in general. The following is a comparison of the average returns to NFL team ownership from 1998 to 2008 versus a broad-based U.S. stock index, the S&P 500:



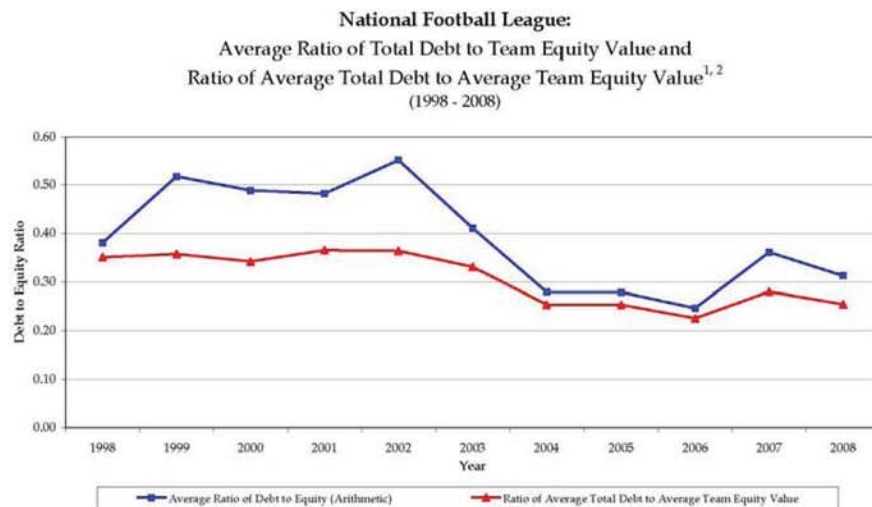
As the graphic shows, NFL team ownership has consistently yielded a better overall return than a typical investment in the U.S. economy, including after the recent stock market decline. Moreover, these numbers may understate just how well the owners are actually doing. Without detailed financial information, it is difficult to determine the extent to which there are returns that are not captured in the data to which we have access. Many sports teams have affiliated businesses, and it could easily be the case that they are making money from these businesses that would be correctly attributed to their ownership of the

<sup>8</sup> Tony Barilla, "Economic Insights: The National Football League," The Business Report & Journal, October 30, 2006.

team. To the extent that there are enterprises affiliated with various NFL teams, our estimates of total return are likely to be conservative.

One of the reasons cited by the NFL owners for the desire to renegotiate the 2006 CBA is the increased amount of debt that the teams are currently carrying. However, from an economic perspective, debt cannot be evaluated in absolute terms; it should instead be considered in light of the overall value of the enterprise that has incurred the debt. In other words, a company worth \$1 billion that has \$100 million in debt is, as a general matter, in better shape economically than a company worth only \$1 million that has \$100 million in debt. This fact is reflected in a measure that is commonly known as the company's "debt-to-equity ratio." The data on this point indicate that NFL owner debt has decreased over time when compared to the equity of the teams:

Figure 10



Sources: Forbes Magazine and Forbes.com

Notes: (1) The Equity Value for a team was computed as the difference of Forbes Team Value and the Implied Debt. Implied Debt was computed by applying the debt-to-value ratio, as provided by Forbes, to the Forbes Team Value.  
(2) This calculation underestimates the value of equity for each team by the amount of the team's stadium debt. Specifically, the Forbes Team Value excludes debt other than stadium debt and the Forbes debt-to-value ratio includes stadium and other debt. We have insufficient data to reverse that effect.

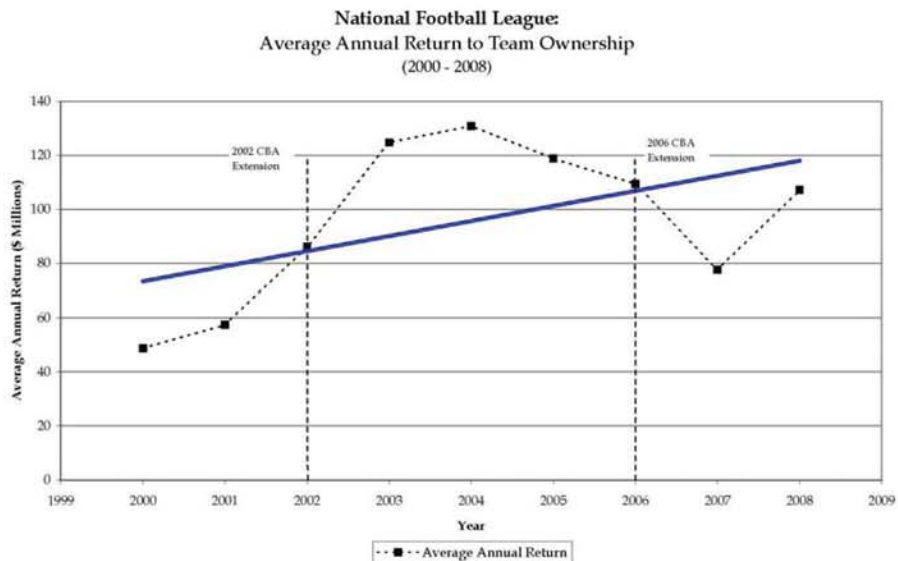
As the figure shows, although total debt in the NFL has increased in absolute terms, it has increased more slowly than has team value. This indicates that debt is less of an issue for NFL teams now than it has been in the past. One should also note that a portion of the recent increase in debt is the result of financing put in place to build stadiums, including those now under construction by the Cowboys in Dallas and the Giants and the Jets in New York. These stadiums will generate revenue streams that will not be recognized in team

income until some time in the future. In sum, NFL owner complaints about increasing debt do not appear to be well founded.

### 3. *The Combined Wealth Effect of Increased Operating Income and Franchise Values for NFL Owners*

As noted earlier, the total wealth generated by a company must take into account both operating income and capital appreciation. Taking both of these factors into account, between 2000 and 2008, NFL owners realized, on average, total returns of between \$49 million and \$131 million per year depending on the year, with average financial returns in recent years that have typically exceeded \$100 million per year:

Figure 11



Sources: Forbes Magazine and Forbes.com

Note: Annual return is equal to annual operating income for a particular year plus the change in team value over that same year.

Notably, the average return for an NFL owner, when both operating income and capital appreciation are taken into account, has averaged approximately \$100 million per year (\$98.1 million) since the 2006 CBA extension. (The return in two of the three years has been above \$100 million). While the average return for NFL owners may be slightly lower than it was prior to 2006 (when it was more than \$120 million per year), NFL ownership is still extraordinarily profitable.

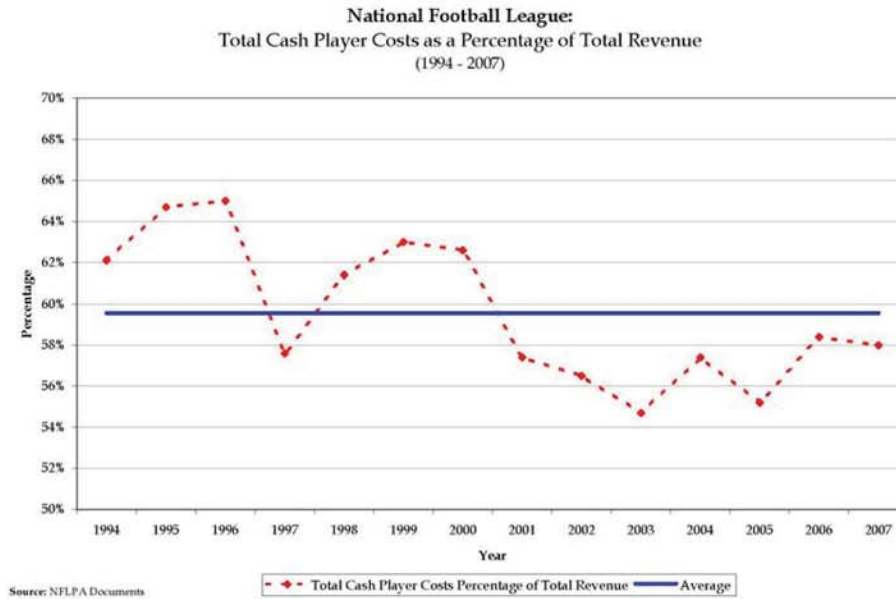


#### IV. IMPLICATIONS FOR PLAYER SALARIES

In light of the information presented above, it is difficult to make a case that the owners are not earning enough to pay the players what they are due to make under the current CBA. NFL teams are individually worth, on average, more than \$1 billion, and NFL owners have continued to realize financial returns of approximately \$100 million per year even after the 2006 CBA extension. The most valuable team, the Dallas Cowboys, is worth an estimated \$1.612 billion, and even the least valuable team, the Minnesota Vikings (which is one of the few teams in the NFL playing in a relatively old stadium), is worth an estimated \$839 million. NFL teams are cash-flow positive. Over the past five years, out of 160 yearly financial results for NFL teams, there have only been eight instances in which Forbes reported that a team had a net operating loss in a particular year. In 2008, only one team, the Detroit Lions, had a net operating loss, and that was small (\$3.1 million). And, finally, the value of the average NFL team continues to rise, notwithstanding the increase in player compensation. All of this suggests that NFL team owners are doing very well under the current system.

To the extent that NFL owners are complaining about the level of player salaries compared to their revenues, it appears the owners are arguing that the players should receive a percentage of revenues that is less than the average percentage they have historically received under the free agency/salary cap system that has been in place since the prior system was declared to be an antitrust violation by a Minnesota federal court. A graph of the annual percentages of total player compensation compared to total revenues in the NFL shows that the recent increase since the 2006 CBA extension has simply returned the players' percentage to a level near the overall average:

Figure 12



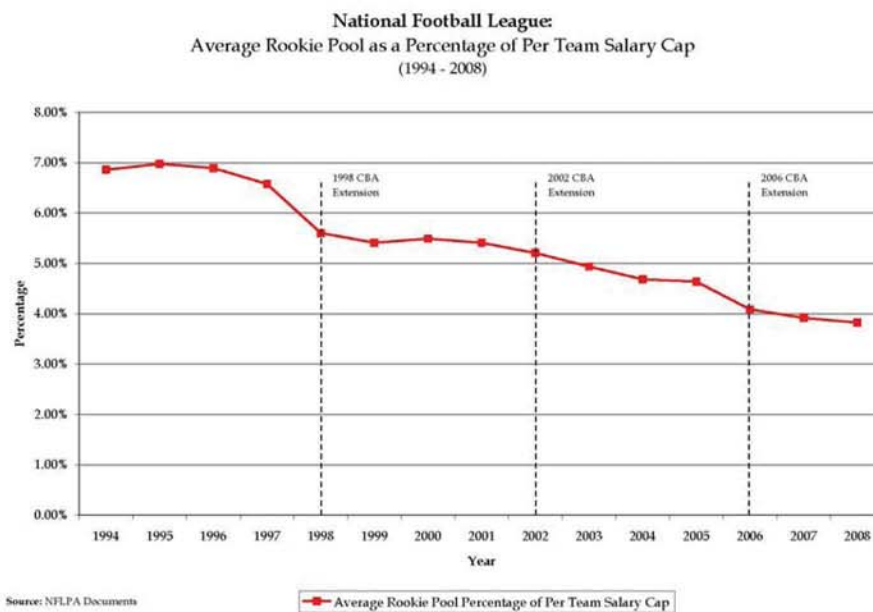
Considering the changes in the players' overall percentage over time, it appears that the players' percentage did not keep pace with the growth in NFL revenues after 2000. To the extent the 2006 CBA extension resulted in increases in the salary cap, those increases have raised the players' percentage so that it is closer to the historical average of approximately 59 percent of revenue. Reducing the players' percentage, as the owners suggest, would not redress a situation in which the players are receiving a higher than average percentage, but would instead reduce the players' percentage to a level below the historical average.

If the owners have concerns that the current economic climate will persist over the long term and restrain the revenue growth they have consistently enjoyed, the current CBA provides that the players' percentage is subject to a ceiling mechanism under which the salary cap plus projected player benefits cannot exceed more than 61.68 percent of projected revenues in any year. Since the owners' total annual return appears to be much greater than the difference between the players' current percentage and this ceiling, the owners should have a substantial cushion. This protection is extraordinarily unusual when compared to other industries in the U.S.



Finally, we understand that the owners seek a change in the system for compensating rookie players in the NFL, apparently arguing that the current system has left teams paying more for untested rookie talent than for proven veterans. The available data suggest that the owners' argument is without merit. The chart below shows the average rookie pool as a percentage of the per team salary cap from 1994 to the present. As this chart shows, the average rookie pool has declined relative to the per team salary cap from approximately 7 percent in 1994 to just under 4 percent in 2008.

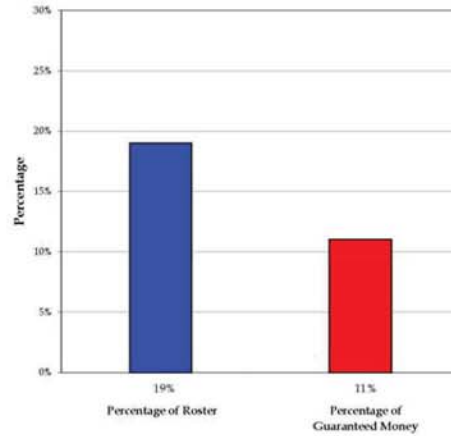
Figure 13



And the proportion of rookie compensation that is guaranteed is far less than the relative share of rookies on rosters:

Figure 14

**National Football League Rookies:  
Percentage of Roster vs. Percentage of Guaranteed Money  
(2007)**



Source: NFLPA Documents

Note: Percentages are based on first-day rosters.

This strongly suggests that compensation for rookies is far less favorable on the whole than is compensation for veterans.

## V. CONCLUSION

Our review of the available data shows that the NFL owners' arguments about their inability to continue with the CBA are unfounded. The owners seem to be focusing on net operating income, which is the wrong measure and can be very misleading. If one focuses on total return, which is the appropriate measure, the owners have done extremely well. For example, on average, since 2002, NFL owners have enjoyed returns of more than \$100 million per team per year. It is therefore clear that NFL teams are successful businesses that have no economic need to alter the current CBA system. Nor does the current economic environment require any change in the CBA system, as it already has built-in mechanisms to protect the NFL owners in an economic downturn.

### **Professor Kevin M. Murphy**

Professor Murphy is the George J. Stigler Distinguished Service Professor of Economics in the Booth School of Business and the Department of Economics at The University of Chicago, where he has taught since 1983. He received his bachelor's degree in economics from the University of California, Los Angeles, in 1981, and his doctorate in economics from The University of Chicago in 1986.

At The University of Chicago, he is a member of the faculties of both the Booth School of Business and the Department of Economics. He teaches graduate level courses in microeconomics, price theory, empirical labor economics, and the economics of public policy issues. In these courses, he covers a wide range of topics, including the incentives that motivate firms and individuals, the operation of markets, and the impacts of regulation and the legal system. Most of his teaching focuses on two things: how to use the tools of economics to understand the behavior of individuals, firms and markets; and how to apply economic analysis to data. His focus in both research and teaching is on integrating economic principles with empirical analysis.

He is the author of two books and the author or co-author of more than fifty articles in a variety of areas in economics. These articles have been published in leading scholarly and professional journals, including the *American Economic Review*, *The Journal of Law and Economics*, and the *Journal of Political Economy*. His writing has also been published in numerous mainstream publications, including the *Boston Globe*, *New York Times*, *Chicago Tribune*, and two articles in the *Wall Street Journal*, both of which were co-authored with Nobel laureate Gary Becker.

He is a Fellow of the Econometric Society and an elected member of the American Academy of Arts and Sciences. In 1997, he was awarded the John Bates Clark Medal, which the American Economic Association awards once every two years to an outstanding American economist under the age of forty. In 2005, he was named a MacArthur Fellow, an award that provides a five-year fellowship to individuals who show exceptional merit and promise for continued and enhanced creative work. He is the first professor at a business school to receive a MacArthur award in the twenty-five years they have been given.

In addition to his position at The University of Chicago, he is a Principal at Chicago Partners, a subsidiary of Navigant Consulting, a consulting firm that specializes in the application of economics to law and regulatory matters. He is also a faculty research associate at the National Bureau of Economic Research.



### **Professor Robert H. Topel**

Professor Robert H. Topel is the Isidore Brown and Gladys J. Brown Professor of Economics at The University of Chicago Booth School of Business, Director of the University's George J. Stigler Center for the Study of the Economy and the State, and Director of The University of Chicago Energy Initiative. He received his B.A. in economics from The University of California, Santa Barbara in 1974 and a Ph.D. in economics from The University of California, Los Angeles in 1981.

In addition to his position in the Booth School of Business at The University of Chicago, Professor Topel has been a member of the faculties in the Department of Economics at The University of Chicago and the Department of Economics at The University of California, Los Angeles. At these institutions, he has taught courses on Markets and Prices, Economic Theory, Labor Markets, Compensation and Personnel Policies, Industrial Organization and Antitrust, Business Strategy, and Law and Economics.

Professor Topel is the author of several books, including *The Welfare State in Transition* with Richard Freeman and Birgitta Swedenborg, *Labor Market Data and Measurement* with John Haltiwanger and Marilyn Manser, and *Measuring the Gains from Medical Research: An Economic Approach* with Kevin M. Murphy. He has written more than 60 articles and monographs that have been published in professional journals.

From 1993 to 2003, he was Editor of the *Journal of Political Economy*, and from 1991-1993, he was a member of the Editorial Board of the *American Economic Review*, two of the leading professional publications in economics and economic theory. He is also a past founding editor of the *Journal of Labor Economics* (1982-92), and is currently a member of the Editorial Advisory Board of the *International Journal of the Economics of Business* and the Advisory Board of the *Economics Research Network*.

He is a research associate of the National Bureau of Economic Research, an elected member of the Council on Income and Wealth, an elected Founding Member of the National Academy of Social Insurance, a Fellow of the Stanford University Center for the Study of Poverty and Inequality, and a member of the Brookings Panel on Economic Activity. In 2004, he was elected an Honorary Fellow of the Society of Labor Economists. In 2005, he received the Eugene Garfield Award for contributions to the economics of medical research, and in 2006 he received the Kenneth Arrow Award from the International Health Economics Association.

Professor Topel is also a Principal at Chicago Partners, a subsidiary of Navigant Consulting, a consulting firm that specializes in the application of economics to law and regulatory matters. He has held various visiting and research positions with the Board of Governors of the Federal Reserve, the World Bank, Economics Research Center of the National Opinion Research Center, the Brookings Panel on Economic Activity, the Rand Corporation, and the Center for the Study of the Economy and the State.